Corrector Prototype Beamline Test Planning and Status
June 1, 2007 1:00 pm
Craig Drennan

Introduction:
As mentioned in the previous minutes, we are planning to do a pre-shutdown installation and full power test of a new corrector package into the booster. This would test not only the corrector package but all of the other associated power supplies and controls.

We hope to have everything in place by July 9, 2007

This weeks meeting was short, but several people showed up to provide estimates of when they would have equipment available for the test. Most of the Booster people were not in attendance due to a Booster shutdown which gave them an opportunity to make needed repairs. Reports related to the prototype test received throughout the week are also included in these minutes. The minutes of the previous meetings can be found in the AD Document Database as Beams-doc-2792.

Please send any additions or corrections to these minutes to cdrennan@fnal.gov.

Those in attendance:
Craig Drennan, Jim Ranson, George Krafczyk, Jim Fitzgerald, Joel Misek, Paul Kasley

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Next Meeting: June 8, 2007, 1:00 pm in the Penthouse West Booster Tower
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13. Jeff Larson, this last week, reported that a bore-o-scope camera was run the length of the cable penetration that we plan to use to run the magnet power cables. He reported that the penetration was clear and dry, and that the length of the penetration was almost exactly 50 Feet.

14. Mike Kucera has all of the VME crates and module needed for the analog read backs. Paul Kasley from AD/Controls reported that all of the 128 channel HRM units we need for both the long straight corrector upgrade and the power supply test stand are available. The HRM for the power supply test stand is currently in operation and Paul will be delivering the others to Mike Kucera so he can begin testing full systems in his lab. The HRM / VME analog read back system for the prototype test is expected to be available by June 6, 2007.

15. We now anticipate making a major request for an 8 hour “supervised shutdown” with a power outage, to occur sometime between June 27 and July 3. The minimum number of tasks we would like to accomplish in this shutdown are:

    a. Make final connections for AC power in the West Booster Tower corrector power supply racks.

b. Run the magnet power cables for the one corrector package.
c. Put in place a corrector package on a temporary stand with the final adjustment plate, to the side of the Booster beam line.

This much will allow us to make some early tests of the power supplies and controls until the next shutdown we can get to finish the installation downstairs. If possible in this first shutdown or in the next shutdown we would want to accomplish:

d. Connection of the corrector package into the beam line / Booster vacuum
e. Connect the corrector to the LCW cooling water.
f. Connect the BPM to the existing signal cables at Period 4.
g. Perform an alignment using the new adjustment plate and corrector alignment fixtures.

16. Jim Ranson reported that all of the corrector power supply rack work being done by the electricians will be complete by June 6. That is all but the final AC power connections. Once the electricians have finished the racks will be available to be loaded with the various crates and power supplies.

17. Joel Misek reported that the final part of the stand for the prototype test, the adjustment plate, should arrive around June 22. The corrector will sit on this adjustment plate with a temporary stand underneath for the prototype test.

18. George Krafczyk indicated that a bulk supply will have been installed in the Period 4 racks by June 15. Work to get this bulk installed may begin as early as next week. The 40 Amp and 65 Amp switch mode power supplies are expected to be in hand by June 29. The 2 Amp supply is expected to be available by July 9. The chassis for the 2 Amp supply has experienced some delays in procurement.

19. Jim Fitzgerald and Joel Misek reported that an in-house built BPM with flanges and bellows will likely be available by the end of next week, June 8.

20. Kent Triplett has estimated that the CAMAC crate, CAMAC controller card, and the C473 Ramp controller cards will be installed by June 20, the internal cabling for power supply control and monitoring installed by June 27, and the establishment of the ACNET devices for this location by June 29. Kent pointed out that he will need to coordinate with operations to reboot the server to activate the new ACNET devices.

Components we will need for the test.

__X__ Corrector Package.
Available

_____ Beam Position Monitor with bellows and flanges (fabricated in-house)
Current Estimate: June 12, 2007

_____ Corrector stand with adjustment plate assembly
Current Estimate: June 25, 2007

__X__ Power cables for magnets (including cable for Klixon)
Available

__X__ Cable tray for West Tower
Available

__X__ AC power disconnects, conduit, power strips, etc.
Available

_____ Power outage for final AC hook-up.
Current Estimate: June 27, 28 or 29

_____ Components needed for the LCW connection.
Current Estimate: _____

_____ 4 each 40 Amp Switch Mode Power Supplies.
Current Estimate: June 29, 2007

_____ 1 each 65 Amp Switch Mode Power Supply.
Current Estimate: June 29, 2007

_____ 1 each 2 Amp Switch Mode Power Supply.
Current Estimate: July 9, 2007

_____ Bulk power supply built in rack.
Current Estimate: June 15, 2007

_____ HRM Chassis and VME Crate and modules installed with ACNET Devices
Current Estimate: June 6, 2007

_____ CAMAC Crate and crate controller installed in rack.
Current Estimate: June 20, 2007

_____ Six C473 Ramp Cards installed with ACNET devices assigned.
Current Estimate: June 20, 2007

_____ Local cable assemblies for power supply control and status.
Current Estimate: June 27, 2007